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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,039	07/12/2001	Brendan J. Kitts	VIGN1130	6148

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EXAMINER	
DESHPANDE, KALYAN K	

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/682,039	KITTS, BRENDAN J.	
	Examiner	Art Unit	
	Kalyan K. Deshpande	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. The following is a non-final office action in response to the communications received on February 9, 2006. Claims 1-18 are cancelled. Claims 19-33 are now pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 19-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delurgio et al. (U.S. Patent No. 6553352).

As per claim 19, Delurgio et al. teach:

A computer-readable medium carrying computer executable instructions for modeling an operating parameter for a store, comprising:

Code for collecting transaction data containing quantities of a plurality of items (see column 7 lines 43-47 and figure 2; where customer data sets are uploaded to the application. The customer data sets contain transactional information, such as point-of-sale data.);

Code for constructing quantity and price timeseries for each of the plurality of items (see column 7 lines 47-60, column 8 lines 1-9, column 9 lines 64-67, column 10 lines 24-40, and figure 1; where the optimization engine uses data acquisition

logic to extract out appropriate data for the type of optimization selected by the user. For price optimization, the optimization engine extracts sales information. Sales information includes sales transaction data from retail stores.);

Code for generating a first matrix of correlation factors utilizing the quantity and price timeseries (see column 8 lines 10-25, column 8 lines 46-65, and figure 1; where mixed model methodology is used to determine statistical significance of the data collected and used. Constraints (i.e. correlation factors) can entered by the user, including weighted price advance or decline of products.);

Code for identifying top positive and negative correlated items via the first matrix (see figure 1 and column 6 lines11-59; where top positive and negative correlated items 101 are identified.);

Code for generating a second matrix of weighing factors in which the weighing factors of the top positive and negative correlated items have non-zero values and the weighing factors of all other items are assigned a value of zero (see column 6 lines 60-67 and figure 1; where the system shifts demand from undesirable correlations. Undesirable correlations are items other than those of the top positive and negative correlation.); and

Code for calculating the operating parameter utilizing the second matrix of weighing factors (see column 6 lines 60-67 and figure 1; where the apparatus and method incorporates the correlation factors.).

Delurgio et al. fail to teach "code for changing row order of the transaction data so that all records for each item are in contiguous rows". It is old and well-known in the

art to sort records of data in a database such that desired records are in contiguous rows. Traditional SQL commands include the "order by" and "group by" commands which will result in desired records to be rendered in contiguous rows. The advantage of sorting row orders such that records for each item are in contiguous rows is that it allows for data to be presented to a user in an order that facilitates a user's ability to use the data. It would have been obvious, at the time of the invention, for one of ordinary skill in the art to include SQL statements of "order by" or "group by" to the Delurgio et al. system in order to present data to a user in a manner that facilitates the user's ability to use the data, which is a goal of Delurgio et al. (column 3 lines 24-29).

As per claim 20, Delurgio et al. teach:

The computer-readable medium of claim 19, wherein the operating parameter corresponds to a demand, a revenue, or a profit associated with the plurality of items (see column 8 lines 46-64; where the optimization engine optimizes using constraints (operating parameters) to determine the optimal solution, where the solution can be for maximizing profit, volume or revenue.).

As per claim 21, Delurgio et al. teach:

The computer-readable medium of claim 19, wherein at least two of the plurality of items belong to different categories (see column 8 lines 10-25; where the demand engine works on a mixed-model method. The mixed-model method incorporates products within a product category or a demand group. A demand group stretches across products in different categories.).

As per claim 22, Delurgio et al. teach:

The computer-readable medium of claim 21, wherein the plurality of items corresponding to retail products being sold within the store, the retail products being divided into different categories; and wherein at least two of the plurality of items belong to different categories (see column 8 lines 10-25; where the demand engine works on a mixed-model method. The mixed-model method incorporates products within a product category or a demand group. A demand group stretches across products in different categories. Delurgio et al. provide examples of retail products such as bar soaps and liquid soaps.).

As per claim 23, Delurgio et al. teach:

The computer-readable medium of claim 19, further comprising:

Code for predicting a demand on quantity for each of the plurality of items (see column 8 lines 26-33; where consumer demand is predicted by the demand engine.).

As per claim 24, Delurgio et al. teach:

The computer-readable medium of claim 23, further comprising:

Code for determining an effect of a price change on the demand on quantity (see column 8 lines 26-64 and figure 1; where the scenario processor determines the optimal pricing for products using price changing effects on demand.).

As per claim 25, Delurgio et al. teach:

The computer-readable medium of claim 23, further comprising:

Code for determining, from the transaction data, one or more variables having an effect on the demand on quantity (see column 8 lines 26-64; where a plurality of

variables are used to determine optimal pricing based on the effects pricing on consumer demand.); and

Code for determining correlations between the one or more variables and the demand on quantity (see column 8 lines 26-64; where a plurality of variables are used to determine optimal pricing based on the effects pricing on consumer demand.).

As per claim 26, Delurgio et al. teach:

The computer readable medium of claim 25, wherein the one or more variables include externalities, lag-demand, and global-price-terms (see column 8 lines 26-64 and column 9 lines 27-32; where the optimization engine uses a plurality of variables to determine optimal pricing. The system allows a user to select the promotion tool. The promotion tool optimizes the promotional pricing of products. Promotional pricing is the same as global-price-terms as defined by the Specification (see Specification page 13). The system also uses historical sales data to predict consumer demand. Lag-demand data is part of historical sales data as defined by the Specification (see Specification page 13).)

Claims 27-33 recites limitations already addressed by the rejections of claims 19-26; therefore the same rejections apply to these claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are pertinent to the current invention, though not relied upon:

Ouimet et al. (U.S. Patent No. 6308162) teaches a computer-implemented method and system for controlled optimization of enterprise planning models is provided.

Herz et al. (U.S. Patent Publication No. 20010014868) teaches a system for the automatic determination of customized prices and promotions automatically constructs product offers tailored to individual shoppers, or types of shopper, in a way that attempts to maximize the vendor's profits.

Rose et al. (U.S. Patent No. 7006981) teaches historical information stored about demand behavior associated with different sizes of styles of items of commerce.

Honarvar et al. (U.S. Patent No. 6708155) teaches an apparatus and method for automatically optimizing a strategy of a decision management system.

Caplin et al. (Caplin, Andrew; Leahy, John; "Aggregation and Optimization with State-Dependant Pricing", *Econometrica*, May 1997, pp. 67-92) teaches the effects of aggregate variables on optimization problems.

Konieczny (Konieczny, Jerzy D; "Variable Price Adjustment Costs", *Economic Inquiry*, July 1993, pp. 488-499) teaches optimal pricing policies dependant on adjustment size or adjustment frequencies.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalyan K. Deshpande whose telephone number is (571) 272-5880. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kkd

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